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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/502,092	10/29/2004	Garry E. Jacobs	100325.0144US4	4007
34284	7590	06/07/2006	EXAMINER	
ROBERT D. FISH RUTAN & TUCKER LLP 611 ANTON BLVD 14TH FLOOR COSTA MESA, CA 92626-1931			BUSHEY, CHARLES S	
			ART UNIT	PAPER NUMBER
			1724	
DATE MAILED: 06/07/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/502,092	Applicant(s) JACOBS ET AL.	
	Examiner Scott Bushey	Art Unit 1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on ____.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-16 is/are pending in the application.

4a) Of the above claim(s) ____ is/are withdrawn from consideration.

5) ☐ Claim(s) ____ is/are allowed.

6) ☒ Claim(s) 1-16 is/are rejected.

7) ☐ Claim(s) ____ is/are objected to.

8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some * c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. ____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date: ____ 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6) <input type="checkbox"/> Other: ____
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DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: 1) page 1, line 10, "6098065" is apparently incorrect and should be changed to --6098965--; 2) page 3, line 9, needs a period after "liquid".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-4 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a skirt height of no less than 4 cm when there are at least 3 slots in the cap, does not reasonably provide enablement for a skirt height of less than 7 cm when there are less than 3 slots in the cap. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims. Although there is general support throughout the specification for a skirt height of at least 4 cm with any number of slots, it is clear from the specific examples given on page 12 of the specification that a bubble cap having less than 3 slots is not intended to have a skirt height of less than 7 cm.

Claim Rejections - 35 USC § 102

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4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-16 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Ballard et al (Figs. 1 and 2; col. 5, lines 44-49; col. 8, lines 52-57, 63-65; col. 9, lines 9-15, 30-53; col. 11, line 74 through col. 12, line 2; col. 13, lines 12-19).

Ballard et al clearly discloses slotted bubble caps having skirt heights of from at least 4 cm up about 1 foot (30.48 cm). Ballard et al provides specific disclosures of slots within the caps numbering 7 and 14 (note col. 12, line 2 and col. 13, lines 15-17). The reference also discloses slot lengths within the caps of from about 1/8 to about 1/2 the height of the cap itself, with specific disclosures of slot lengths of 1.5" (3.81 cm) and 2.5" (6.35 cm). Lastly, the reference discloses that an exposed slot height must exist to allow for proper operation of the bubble cap. See col. 9, lines 13-15, 46-48. Given a set of specifically disclosed data points relative to the bubble caps of Ballard et al, i.e., a skirt height of 1 foot (30.48 cm, set forth at col. 8, line 57), a slot length of 2.5" (6.35 cm, set forth at col. 13, line 17) and an exposed slot height sufficient to allow operation of the device (at least 0.01 cm or at most 6.35 cm, for the given disclosed slot length), within a cap having 7 slots (as set forth at col. 13, line 16), such provides a bubble cap that anticipates the equations as set forth by each of instant claims 1-16.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ballard et al.

Ballard et al, as applied above is considered to anticipate each of applicant's instant claims 1-16. However, even if applicant cannot agree that the disclosure of Ballard et al clearly anticipates the instant claims, it would have been obvious for an artisan at the time of the invention, given the total disclosure of the Ballard et al reference, to arrive at a bubble cap that met each of applicant's instant claims, by way of routine experimentation. Clearly Ballard et al envisaged operation of the bubble caps therein in precisely the same manner as set forth by applicant's instant disclosure and claims. Furthermore, the reference provides specifically disclosed dimensional

characteristics that correspond to those as set forth by applicant so as to provide a bubble cap that will perform the desired function in the same manner as set forth by applicant to arrive at the same result as desired by applicant.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Bushey whose telephone number is 571 272-1153. The examiner can normally be reached on M-Th 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Scott Bushey
Primary Examiner
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